

ANOTHER AQUATIC CATERPILLAR (*ELOPHILA*).

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In my paper in the December *PSYCHE*, I referred to *Elophila* (*Cataclysta*) as a larva not yet known in America. There is a cocoon of this genus in the College collection here, agreeing with those of the European species. It contained a skin in exceptionally good condition, making it possible to compare the caterpillar as well as the chrysalis with those of *Nymphula* and *Paraponyx*.

Caterpillar. In general characters agreeing with that of the other two aquatic genera; with smallish head, no tracheal gills, no posterior ocellus; with head, setæ and prolegs essentially as in *Nymphula*. Punctures of front closer together than in the others

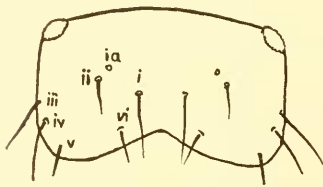


Fig. 1. Labrum of *Elophila* sp.

($\frac{1}{4}$ as far apart as the setæ) ad-frontal punctures higher than setæ, but not so much; *i* of labrum (see figure) much lower than *ii* and quite near the middle line; the puncture near *ii*; antennæ as in *Nymphula* proper, but the first seta is rather farther out. Lower lip normal. Apparently there are only

three ocelli, but the specimen is not favorable. Prolegs as in *Nymphula* proper, the ventrals with 50, the anals with 15 hooks. Spiracles of first four abdominal segments larger, especially those of A3 and 4; but the others are more than half as large, and evidently functional.

Case spheroidal, of a mosaic of *Lemna* leaves. It is distinguished from those of *Nymphula* and *Hydrocampa* by the lack of a sharp lateral edge. The leaves of the case do not seem to be eaten.

Pupa similar in appearance to *Nymphula*, and in details except as follows. The last spiracles are on little conical projections, and where the spiracle of A9 should be there is a more prominent irregularly conical spine. Of the three enlarged spiracles, the first is but little smaller. There are two parallel thickened transverse ridges on the center of the seventh and eighth abdominal

segments, just beyond the trip of the leg-case. They may be an abnormality.

The species is only half as large as an average Nymphula.

Specimen from Cedar Lake, in the northwest corner of New Jersey. This genus is evidently much nearer to Nymphula (*Hydrocampa*) than to *Paraponyx*, but may be easily distinguished by the different case and different front and labrum of the larva; and by the very small size of the pupa (perhaps also by the ridges on the under side of the abdomen.)

A FEW SUGGESTIONS ON THE CARE OF THE EGGS
AND THE REARING OF THE WALKING-STICK,
DIAPHEROMERA FEMORATA SAY.

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Some difficulty seems to have been experienced by a number of investigators to determine the number of molts which various species of Phasmids have. In a previous paper (7) we discussed the diversity of opinions of various entomologists concerning the number of molts undergone by our common American walking-stick, *Diaperomera femorata*. Among the European Phasmidae, *Bacillus rossii* seems to offer the greatest opportunity for a difference in opinion as to the probable number of molts. According to Pagenstecher,¹ *Bacillus rossii* casts its skin seven or eight times, while Kheil (4) and Godelmann (3) both agree upon five molts. Daiber (2), who did some work on this same species of walking-stick, is unable to give the number of molts with certainty, because as she explains, the process of ecdysis occurs during the night and the exuviated skins are often eaten immediately by the recently molted walking-sticks. She says, "Da aus den angeführten Gründen mit Leichtigkeit eine Häutung übersehen werden kann, möchte ich diese Zahl von 5 Häutungen als Minimum bezeichnen." v. Baehr (1) "möchte auch behaupten, dass die Zahl 5 zu klein ist."

¹ Paper not accessible. Quoted from Godelmann's (3) paper.